Amendment Dated March 11, 2008
Serial No. 10/719,299

REMARKS

Reconsideration of the rejection set forth in the Office Action is respectfully requested. Currently, claims 1-17 are pending in this application.

Rejection under 35 USC 102 over Knight

Claims 1-2 and 5-17 were rejected under 35 USC 102(e) as anticipated by Knight (U.S. Patent Application Publication No. 2004/0199618). This rejection is traversed in view of the following arguments.

This application relates to a method and apparatus for transporting parcels of data using network elements with network element storage. (Specification at Par. 2). The term "parcel of data" is defined as "a relatively large amount of data that is to be logically treated together and to be passed as a unit through the network from a given starting point to a given end point." (Specification at Par. 16). As described in Paragraph 17, network elements are provided with local temporary fast storage that will allow them to store data temporarily as the data is being transported through the network. This allows data to be transported hop-by-hop through the network rather than requiring an entire path through the network. By allowing the network elements to store data, data may be transported part of the way through the network, stored at a network element, and then transported the rest of the way through the network to its intended destination. This is different than normal data transport mechanism, which generally cause data to be streamed through the network rather than being transported to an intermediate network element and stored there until the next leg of the network path is available.

Claim 1 recites a method of transporting a parcel of data by an intermediate network element, the method including the steps of receiving for forwarding a parcel of data by an intermediate network element having network element storage; storing the parcel of data in the network element storage in coordination with at least one of said data source and data target; and forwarding the parcel of data. Knight does not teach or suggest that a network element should handle a "parcel" of data by receiving the parcel, storing the parcel, and then forwarding the parcel.

The Examiner has taken the position that Knight teaches a method of transporting a parcel of data by an intermediate network element (storage router 22 and/or 28). Thus, to show

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that Knight anticipates claim 1, the Examiner must show that Knight teaches that the storage router 22 performs all of the steps of the method recited in claim 1.

Knight does not describe the functions that are performed by the "storage router". Applicants representative did a search through the published application and located only three instances where storage router 22/28 is described (Paragraphs 22-23, 25, and 30). For convenience, paragraphs 22 and 23 have been reproduced below.

> [0022] Storage area network 10 typically includes at least one, but typically a plurality of servers 16 connected to at least one but typically a plurality of storage devices 18 through one or more switches 20. The switch 20 is connected to a storage router 22 that interfaces with the wide area network 14. Storage area network 10 in this example is often referred to as a production site.

> [0023] Storage area network 12 typically includes at least one but typically a plurality of storage devices 24 connected to one or more switches 26. The switch is connected to a storage router 28 that interfaces with the wide area network 14. Storage area network 12 in this example is often referred to as an alternate site. Accordingly, the production site and alternate site are operably coupled together over the wide area network 14. The alternate site can also be a fully active production site in its own right. Storage area network 12 also typically includes one or more servers 30 coupled to the switch 26.

As is clear from these two paragraphs, Knight simply states that the switch is connected to a storage router that interfaces the storage area network 10 to the wide are network 14. Thus, it appears that the "storage router" is a gateway or a similar type of network element that serves to allow the storage area network to connect to another network.

In Paragraph 25, Knight teaches that the storage router 22 is a "compression box" (Knight at Par. 25). Compression is commonly used to reduce the size of data for transmission over a network. For example, a 1 Mb stream may be compressed to 256 Kb for transmission and then uncompressed on the other end of the WAN. Thus, the router in Knight does not store parcels of data for transmission over the WAN, but rather compresses data before transmitting it over the WAN to reduce the bandwidth consumed on the WAN.

In paragraph 30, Knight simply states that "storage router 40 generally performs the same functions as storage routers 22, 28"

To prove that claim 1 is not patentable under 35 USC 102, the Examiner is required to show that Knight teaches that the "storage router 22" receive a parcel of data for forwarding, store the parcel of data in network element storage, and then forward the parcel of data.

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On page 6 of the Office Action, in the response to arguments section (paragraphs 13 and 14), the Examiner has addressed two of the arguments that applicants made in the last Response. Specifically, applicants previously argued that Knight does not teach or suggest that a network element should handle a parcel of data. Applicant's argument is not that Knight does not teach or suggest transferring parcels of data — the replicated data that is being replicated from one storage area network to the other storage area network in Knight could indeed be considered a parcel of data. Rather, applicants' argument is that the storage router 22 does not receive a parcel of data, store the parcel of data, and then after storing the parcel of data, forward the data. There is no teaching or suggestion in Knight that the storage router is storing the parcel of data before transmitting it onto the WAN. Rather, as explained above, the storage router 22 is a compression box or other normal router that is forwarding data onto the WAN as it is received. Thus, the storage router 22 is not performing the claimed method.

In paragraph 14, the Examiner indicated that Knight teaches storing parcels of data citing paragraph 27. For convenience this paragraph has been reproduced below:

> [0027] Information, or data, is created or modified at the production site, i.e., storage area network 10, at servers 16 and stored in the storage devices 18. The data is then passed across the wide area network 14 and replicated on storage devices 24 at the alternate site, i.e., storage area network 12. The data now exists in two (at least two) separate storage area networks that can be located a long way away from each other. A suitable back up is provided in case one storage area network should fail or data at one location becomes corrupted.

As is clear from this paragraph, data in Knight is stored in storage devices 18, 24.

Applicants are not arguing that Knight does not store data. Rather, applicants' argument is that Knight does not teach or suggest storing a parcel of data <u>by an intermediate network element</u>, as claimed in claim 1. As is clear from a review of paragraph 27, this portion of Knight does not teach or suggest that an intermediate network element, such as the storage router 22, should receive data from one site, store the data, and then forward it to the other site.

Applicants respectfully submit that Knight does not anticipate the limitations of claim 1. Accordingly, applicants respectfully request that the rejection of claim 1 under 35 USC 102 be withdrawn.

Independent claim 10 recites a network element with network element storage. The Examiner indicated that storage router 22 and/or 28 taught a network element with network

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element storage. Knight is virtually silent about how the storage router 22/28 operates, except noting that the storage router is a "compression box" (Knight at Par. 25). However, Knight is silent as to the internal structure of the storage router 22/28, and certainly never states that the storage router stores data before transmitting it onto the WAN. Indeed, Knight is virtually silent about how the router operates. The only possible association between the router 22/28 and "storage" is the fact that Knight calls the device a "storage router." This does not mean that the router has storage, but rather appears to relate to the fact that it is a router that is configured to interface between a Storage Area Network (SAN) implemented using Fiber Channel, and a Wide Area Network which would implement another protocol such as Internet Protocol. (See Knight at Paragraphs 24-25).

Thus, applicants respectfully submit that Knight does not teach or suggest a network element with network element storage. Since this aspect of independent claim 10 is not shown in Knight, Knight does not anticipate claim 10.

Moreover, independent claim 10 states that the network element storage is configured to store data semi-permanently on the network, and that the control logic facilitates transmission of a parcel of data from a data source to a data target by causing the parcel of data to be stored intermediate the data source and data target. Knight does not teach or suggest storing data intermediate a data source and data target. Rather, Knight teaches that the data is created at a production site and reproduced to an alternate site (Knight at Paragraph 28). Knight does not suggest that the data should be stored intermediate these two sites. Accordingly, applicants respectfully submit that Knight does not anticipate claim 10 and, therefore, respectfully request the Examiner to withdraw the rejection of claim 10 under 35 USC 102. The dependent claims are likewise patentable for at least these same reasons.

Rejection of claims 3-4 under 35 USC 103

Claims 3-4 were rejected under 35 USC 103 as unpatentable over Knight in view of Kekre (U.S. Patent Application Publication 2005/0050115). Claims 3-4 depend on claim 1 and are therefore patentable for the same reasons set forth above in connection with this independent claim.

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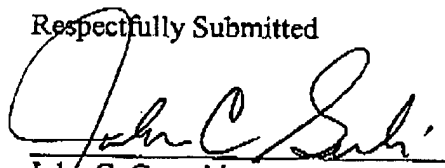Serial No. 10/719,299

Conclusion

Applicants respectfully submit that the claims pending in this application are in condition for allowance and respectfully request an action to that effect. If the Examiner believes that a telephone interview would further prosecution of this application, the Examiner is respectfully requested to contact the undersigned at the number indicated below.

If any fees are due in connection with this filing, the Commissioner is hereby authorized to charge payment of the fees associated with this communication or credit any overpayment to Deposit Account No. 502246 (Ref. NN-16443).

Respectfully Submitted

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